

## THE FIELD OF COPPER

More of It at Better Prices than in 1902.

## OUTPUT OF THE 25 BEST MINES.

Facts Which Indicate Accumulation of Stocks.

Montana still the leading Copper Region of the World—The Boston and Montana Mine Forces to the Front—Michigan's Great Advance in Production—Outlook for 1904 Fairly Good—Notes of Interest from Many Fields.

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HONOLULU, Mich., Dec. 31.—The United States stands preeminent in the production of copper, and the copper, the three indispensable mineral elements of the earth, upon which rests the fabric of modern industrial development. From very modern beginnings the American copper industry has grown to the point of producing considerably more than one half of the copper made in the entire world, and in no other metal is the lead of this country so great.

The year just passed has not been an entirely satisfactory one to the American copper trade, but it was much better than 1902, which witnessed a falling market and a general demoralization of the industry. While 1903 closes with prices materially under the best of the year, and with a slackened demand, the prospects for the new year are good. The best mines will have no trouble in making handsome profits.

The following table gives the twenty-five leading copper producers of the United States, with their respective 1903 output in pounds of refined copper, with actual production for 1901 given in the second column for purposes of comparison. As exact figures will not be available for some months in many cases, while the Amalgamated mines will give out no figures whatever at any time, the table must be taken merely for what it purports to be, an estimate of products of leading mines.

An interesting feature in connection with the list of twenty-five leading American copper mines is that all of the number would appear in a list of the forty leading producers of the world, thus giving to the United States possession of five out of every eight of the world's mines that make approximately 8,000,000 pounds or more of refined copper yearly. The table is appended:

Mine	1903	1901
Arizona	25,000,000	10,500,000
Calumet and Hecla	10,000,000	7,781,382
Boston and Montana	7,500,000	30,000,000
Copper Queen	7,000,000	36,781,382
United Copper	25,000,000	29,000,000
Arizona Copper Company	30,000,000	25,320,000
United Verde	30,000,000	24,320,000
Mountain Copper Company	24,000,000	27,720,000
Calumet and Arizona	25,000,000	1,000,000
Perritt Copper Company	20,000,000	19,730,000
Quincy	18,700,000	20,000,000
Butte Reduction Works	18,000,000	17,000,000
Yavapai	15,000,000	15,000,000
Yavapai Consolidated	12,500,000	6,000,000
Tennessee	12,000,000	6,000,000
Nacogdoches	12,000,000	10,000,000
Champion	11,000,000	11,000,000
Shannon	10,000,000	2,941,432
Butte	10,000,000	10,000,000
Wolverine	9,100,000	4,048,128
Old Dominion	9,000,000	10,000,000
Butte and Butte	9,000,000	9,000,000
Colorado Mining and Sm. Co.	9,000,000	7,000,000

Montana, Michigan and Arizona, the three leading copper fields of the United States, have seven mines each in the list of the twenty-five largest American mines, while Utah, a comparatively new producer, has two, and California and Tennessee one each. Seven mines show a falling off in production as compared with that of two years ago, but in every case the reduction is small, and in several cases the official figures may show no actual decrease.

Of the mines that show decreased production three are in Arizona, two in Michigan and one each in Montana and California. Four of the twenty-five greatest copper producers of the country made no copper at all two years ago, showing that the new mines are a highly important feature of the American copper supply.

While the United States is the largest exporter of copper of any country, supplying a large part of the European demand, it also imports an immense quantity of copper ore, matte and blister copper, the bulk of these imports coming in for smelting and refining. Mexico and Canada combine to furnish the larger part of the imports, but even far away Tasmania sends her copper to Baltimore for refining.

The following table, based on the figures of the United States Geological Survey, gives estimated importations in pounds of fine copper for a period of years.

Year	Pounds Year	Pounds
1902	3,000,000	10,722,340
1901	2,500,000	10,722,340
1900	2,500,000	10,722,340
1899	2,500,000	10,722,340
1898	2,500,000	10,722,340

The figures for 1903 will doubtless show a further increase when published, though the increase will come very largely from Mexico.

Exports of refined copper for six years are shown in the following table, abstracted except for 1903, from the figures of the United States Geological Survey.

Year	Pounds Year	Pounds
1902	2,500,000	10,722,340
1901	2,500,000	10,722,340
1900	2,500,000	10,722,340
1899	2,500,000	10,722,340
1898	2,500,000	10,722,340

The figures for 1903 are necessarily estimated, but are not far from the truth. The show exports exceeding 1901, the year of artificially high prices, by about 74,000,000 pounds, and falling short of the exports of 1902 by about 80,000,000 pounds. The 1903 exports are disappointing in that they average no more than for the three years 1901 to 1900.

In view of the slackening of American demand in 1903, estimated at perhaps 50,000,000 pounds, and the increase in imports, copper in various forms, the figures indicate a gradual accumulation of stocks. The year 1902 was largely a year of accumulation of copper over the United States. This immense surplusage of 1902 was greatly reduced by the drop in prices and the filling of delayed orders.

At the close of the year 1903 stocks had dropped to nearly the vanishing point, and prices rose in consequence. Even a slight drop in prices checked consumption somewhat, and operated even more strongly in inducing consumers to decrease their stocks of raw copper carried.

Great Britain is much the best customer for American copper. Until the beginning of the depression in German industries the passing away, that country was a close second to Great Britain as a consumer of copper, and with better times, already noted, will become a very large customer. Holland imports immense quantities of American copper, the bulk of which

eventually finds its way to Germany and other countries. France comes fourth in the list of our copper customers and after Belgium is added the others can best be lumped as "scattering," for their total trade is very small.

Production of copper by the various producing States of the Union has been as follows, in pounds:

State	1902	1901
Montana	25,000,000	10,500,000
Michigan	10,000,000	7,781,382
Arizona	25,000,000	30,000,000
California	25,000,000	36,781,382
Utah	25,000,000	29,000,000
Colorado	25,000,000	25,320,000
New Mexico	25,000,000	24,320,000
Wyoming	25,000,000	27,720,000
South Dakota	25,000,000	1,000,000
Idaho	25,000,000	19,730,000
Washington	25,000,000	20,000,000
Nevada	25,000,000	17,000,000
Miscellaneous	25,000,000	15,000,000
Totals	250,000,000	290,000,000
From imported ores and mattes	40,000,000	64,000,000
Grand total	290,000,000	354,000,000

Figures regarding 1903 production are necessarily estimates only. The following statement may be considered as a fair approximation.

State or Dist.	Pounds	State or Dist.	Pounds
Montana	25,000,000	Wyoming	27,000,000
Michigan	10,000,000	Idaho	19,730,000
Arizona	25,000,000	Washington	20,000,000
California	25,000,000	Nevada	17,000,000
Utah	25,000,000	South Dakota	1,000,000
Colorado	25,000,000	Miscellaneous	15,000,000
New Mexico	25,000,000	Total	214,300,000

The estimated increase in American domestic production for 1903 is equivalent to about 84 per cent, or about the normal rate of increase noted for some years past.

The growth of the American copper industry is best shown by statistics of production for every fifth year, beginning at the middle of the nineteenth century, at which time the first mine was first taken root in the Lake district. The figures are appended, in long tons:

Year	Tons	Year	Tons
1850	2,000	1880	27,000
1860	2,000	1890	115,000
1870	2,000	1900	115,000
1880	2,000	1901	115,000
1890	2,000	1902	115,000
1900	2,000	1903	115,000

Montana remains the heaviest producer of any copper field in the world. Ligation hampers development, with no prospect of an early settlement. The Anaconda is no longer the rich mine of yore, but the Boston and Montana is a worthy successor. The principal new development under way is the mine and smelter of the Pittsburgh and Montana, planned on a new system.

Michigan has made a notable increase in production of upward of 28,000,000 pounds in a single year—much the greatest of any of the old mines since little or no increase, with the exception of the Wolverine, the added copper coming mainly from the Baltic, Trumountain, Champion and Mohawk mines—four properties, born in the boom of 1890, that already rank high and are destined to rank much higher.

Arizona is the scene of the most pronounced activity in copper mining development in any part of the United States. This territory has four largely developed fields, these being, in order of present importance, the Bisbee field of Cochise county, the Clifton-Morenci field of Graham county, the Jerome field of Yavapai county and the Globe district of Gila county. The Copper Queen at Bisbee will soon be able to increase production largely, with new shafts and a new smelter. The Calumet and Arizona is the best copper mine opened in the United States in a number of years.

California is not coming to the front as a copper producer as rapidly as was expected a few years ago. The Mountain remains the only big mine in the State.

Utah has made a substantial gain in production in 1903, and the future of the industry in that State is no longer subject to doubt. The gold and silver values carried with the copper aid greatly in making profitable mines.

The Tennessee Copper Company has established the soundness of copper mining in the Appalachian district. The property is an old one, abandoned during the civil war, and recently reopened. It probably holds a record for the cheapest smelting cost, ever secured on copper ore.

New Mexico has a few small mines continuing working and obtain respectable products, considering the limited scale of their operations, but the big mines that have been promised in every copper boom for the last quarter of a century remain to come.

Wyoming has two hundred or more copper mines, many of which are merely with just enough money to do a little more than their assessment work. There are several promising properties under development.

Idaho has large copper deposits, of which the most promising are the Seven Devils district, near the Washington line.

In Washington, copper ores are scattered in nearly every part of the State. The Ind. district is the most advanced, and it is probable that some regular producers will develop there within the next year or two.

## OHIO VALLEY BUSY AND OPTIMISTIC.

West Virginia Hopes to Take Second Place Among the Coal Producing States.

WHEELING, W. Va., Dec. 31.—Statements from leading bankers and business men indicate that business conditions throughout the Ohio Valley are as good as they could hope for at this time of the year. The only line of trade or manufacture that has been affected, iron and steel seems to be better than it has been for some time.

West Virginia has mined within 465,000 tons of total coal product in 1902. If present conditions are maintained the State will produce in 1904 250,000 long tons of coal and take second place among the coal producing Commonwealths. Through the strike which occurred last June it lost second place to Alabama.

In the pottery trade the year 1903 was particularly good. Factories in this valley worked day and night until two weeks before Christmas, and the increase in production was such that the year was shipped after that date were sent with the liability of their being turned back.

Glass, stoneware, tobacco and stamped and enamel ware are products peculiarly prominent in the valley, and in these lines manufacturers have just finished an exceedingly busy year.

In speaking of general conditions George Hook, president of the Germania Bank of Wheeling, said:

"Prospects for the new year are good. We find that affairs have settled generally to a more substantial basis, and we are assured that 1904 will compare well with any year that we have had so far as general prosperity among the people is concerned."

## PACIFIC COAST TRADE.

Mercantile Business the Best Ever Known.

## BANKERS HOLD A TIGHT REIN.

Much San Francisco Money Sent to New York.

Old Time Californians Living in the East Draw Funds to Meet Wall Street Loans—San Francisco—Export Losses—\$3,000,000—Labor Troubles Have Hurt the Builders—Hopefulness for 1904 the Common Feeling.

SAN FRANCISCO, Dec. 30.—The Wall Street depression during the year has had some effect on financial conditions in San Francisco, but it has had no apparent result in mercantile business. During the last six months there has been a drain of money from here to New York.

Part of it has been sent to supply the needs of old Californians, residents there who have been caught in the slump. Another part has been drawn to meet the necessities of banks there having San Francisco connections. Some local money has been attracted East by the high rates paid for its use. Still another part, and a large one at that, has gone into the purchase of bonds by the United Railroad Company. Savings banks have lent heavily on real estate.

All of these reasons combined have tended to make money tighter than in the past. The depression in Wall Street has also had its moral effect. In the first place it has engendered caution. In the second place it has discouraged speculation. The flush times when money could be obtained for any enterprise of real merit ceased in September.

There is an apprehension of hard times. In fact, all the local financial men are strong in their expressions to the contrary. But it is the underlying sentiment that a period of waiting has arrived, that financial sails should be taken in.

Mercantile business this year has been larger in volume than in any twelve months in the history of San Francisco. From time to time expressions have been heard that business was not so active as in 1902, but figures show that such was not the fact. With the exception of two or three weeks, the Clearing House returns show an increase this year over the corresponding weeks of last year.

The exports of San Francisco will show an increase of \$3,000,000 and imports an increase of \$1,500,000 over 1902.

The retail business of the holidays has been excellent. It has maintained itself at the high standard of last year. Building has fallen off, owing to unsatisfactory labor conditions. The actual building contracts recorded amount to about \$10,000,000, or nearly the same as in 1902, but this was caused in great part by work in progress on large unfinished structures and the building of the Fairmont Hotel and the Merchants' Exchange, which work has been decided upon before unfavorable building conditions had fully developed. The prospects are better for the spring.

The general sentiment in San Francisco is of conservative confidence. Prominent men to whom the question was propounded as to how far the depression in Wall Street has affected business conditions in this section replied as follows:

Former Mayor E. B. Bond, president of the San Francisco Savings Union, "It created a certain feeling of nervousness and caused some belief that a backward movement of the pendulum was about to set in, as well as producing a tightening of the money market. But there was no apprehension of hard times here. The general business has been as good as at any time in the past and much better than in most years."

Douglas S. Watson, manager and director of the Mercantile Improvement Company, an institution especially interested in the development of real estate: "The only effect noticeable in California and more particularly in San Francisco, of the recent depression in Wall Street has been a slight stiffening in interest rates, due principally to the extreme conservatism so prevalent in this city."

John W. Bond, president of the Bank of the West, "The banks, both commercial and savings, have larger deposits than at any time in their history. The farmers throughout the State are paying off their indebtedness and there is a general feeling of security among all classes."

"With the Panama Canal in prospect a growing trade with the Orient and a rich country tributary to San Francisco, this city's prosperity rests on sure foundations."

## OREGON NEVER SO PROSPEROUS AS NOW

Business Men Have Nothing But Praise for 1903—Real Estate Values Going Up Rapidly.

PORTLAND, Ore., Dec. 28.—Prosperity is written all over the year 1903 in Oregon. Never before in the history of this Western country were good times so evident. The pessimists have all been killed off. Not a single failure of any magnitude has occurred.

Crops have been good with the single exception of wheat, which was a little below average, but the price of this cereal has kept up so well that there were practically no losses.

The cultivation of hops has become a big industry in western Oregon, and the price is better than it has been for years. One industry is in a bad shape temporarily, and that is the lumber business. Overproduction and a shutting out of certain markets by a rise in freight rates, have caused some sawmills to shut down and others to work on short shifts. This in turn has about closed down logging, the business connected with which tends to keep alive a number of Northwest towns. But anyone familiar at all with the lumber business can readily see that this will be of only short duration.

Portland has made wonderful strides during the year. New and substantial buildings have gone up in such numbers as are scarcely credible, and with very little borrowed capital. In fact, the costliest buildings are entirely free from debt.

The jobbing and retail trade has been abnormal, and merchants in all lines say they are perfectly satisfied with the results of the year. Hotels are overcrowded all the time, and as to dwellings, you must build for yourself or go without a house.

More Automobiles Than Last Year. From the Portland Times.

All estimates of the number of automobiles to be produced in this country during the present year are interesting. We publish a new one to-day, in which it is figured out that the total output of vehicles in the United States will include 21,250 machines, valued by experts at \$3,500,000,000. It is thought to be about 10,000 in excess of the product for the year 1902, and is expected to be considerably less than the demand.

## RENTS HAVE ADVANCED FROM 25 TO 50 PER CENT.

There is probably nobody better able to judge the condition of this State than Robert Livingston, president of the Portland Chamber of Commerce and the head of a big mortgage company.

"Just say the year could not have been more prosperous and have been a reality. Every line has fared well, and I know the business men are all satisfied with the net results of the year. Everybody is making money and lots of it. The laboring man also is well satisfied with his earnings, and there have been no labor troubles here this year, which is something few cities can say."

"The depression of stocks in Wall Street was known to us only through the newspapers, not being felt out here in the slightest manner. No money was called in, nor was anybody spending any time worrying about it."

"With our present conditions and a world's fair in Portland in 1905, we cannot help being prosperous for some time to come."

## NEBRASKA NEVER IN BETTER SHAPE.

Good Crops, Good Business and No Money Borrowed from Eastern Bankers.

OMAHA, Dec. 31.—The general condition of business in Nebraska has never been better than during the year just passed, and the prospects for continued prosperity are excellent. In an agricultural and stock raising State, where the farmers flourish all year around, business is good all year around.

Despite the heavy and continued rains of the spring and summer, the farmers raised excellent crops, estimated at more than 325,000,000 bushels of wheat, corn, oats, rye and barley. The rains also made the grass on the cattle ranges grow luxuriantly and put all live stock in good order at the beginning of winter.

When the Nebraska farmers began marketing their grain and live stock, they found a ready market. The State, making business of all kinds good. In 1903, the bank deposits of the State amounted to \$89,389,176; in 1902 they were \$121,519,926. This increase is largely due to the farmers.

The big packing houses of the State have prospered during the year, and with the 328,659 head of cattle, 2,223,396 hogs and 3,254,000 sheep in the State at present, will probably continue to flourish next year. The factory output, much of which is packing house and smelter products, has increased in value from \$120,000,000 to \$100,000,000 within the last two years.

The jobbing trade of the State saw a heavy increase during the year, and it shows no signs of falling off now.

"There is more building going on in Omaha and in Nebraska than at any time within the last fifteen years," says J. A. Nutting, secretary of the Omaha Building and Loan Association. "It can trace fully seven-tenths of the funds withdrawn from our bank right into real estate. We have handled 40 per cent. more cash within the past six months than ever before. Dues and assessments have all been paid promptly."

A scheme which promises much to eastern Nebraska is the Fremont Power Canal proposition, which will furnish 15,000 horsepower in electric energy. It has been decided upon by the Omaha, Lincoln and surrounding cities. The packing houses in South Omaha and Lincoln have already arranged for power with which to operate the machinery, and many manufacturing plants are now figuring with the canal management.

This work will cost \$3,500,000 when completed. It is financed by New York capitalists. Contracts for construction have already been let. The waters from the Platte River will be drawn into a canal, which will give a fall of nearly one hundred feet.

Another plan which will undoubtedly prove of great benefit to Nebraska and Iowa is the establishment of a grain exchange at Omaha.

Several large mills and factories are being constructed in Omaha. A market close at hand for all grains raised in the State, Nebraska will save much in railroad rates.

The railroads have been taxed to their utmost during the entire year, and with the large crops still in the hands of the farmers bid fair to be busy for many months on old business, to say nothing of new business.

From indications 1904 will be a banner year in Nebraska. It has been a banner year in Nebraska, and it is expected to be a banner year in Nebraska.

"There has been no falling off in business in Nebraska due to the depression in Wall Street, and our business condition has not suffered at all on that account. In fact, the collapse of the stock market has actually benefited the West. A great deal of money, which has been tied up in speculation and speculation, has been put into legitimate business enterprises in the West."

Henry W. Yates, president of the Nebraska National Bank of Omaha and vice-president of the American Bankers' Association, says: "The financial depression in Wall Street has not affected business conditions in Nebraska in the least. Business has gone on about as usual, with only a slight stringency. The financial stringency issued by Omaha banks shows a larger amount on deposit than at this time last year."

"The remarkable feature of the financial showing for the banks of Nebraska and Omaha is the fact that the usual fall assistance has been managed, not only without assistance from the East, which has been so crippled in times past, but with a slight aid from the resources of the home banks."

Arthur C. Smith, head of M. E. Smith & Co., the largest wholesale dry goods house in the West, says: "Times are so good that we have gained 10 per cent. over any previous year's business. I believe we will estimate 21,250 machines, valued by experts at \$3,500,000,000. It is thought to be about 10,000 in excess of the product for the year 1902, and is expected to be considerably less than the demand."

More Automobiles Than Last Year. From the Portland Times.

All estimates of the number of automobiles to be produced in this country during the present year are interesting. We publish a new one to-day, in which it is figured out that the total output of vehicles in the United States will include 21,250 machines, valued by experts at \$3,500,000,000. It is thought to be about 10,000 in excess of the product for the year 1902, and is expected to be considerably less than the demand."

## STRIKES CUT OUTPUT.

California—Gold Yield Only \$3,750,000.

## ABOUT HALF OF 1901 RECORD.

Reports from Other Mining Camps of the West.

Cost of Copper Making in the Big Butte District—Rush Expected in the Spring to the Tanana Country in Alaska—Good Finds Reported There—(Ah) Increases Its Mineral Yield—Eastern Capital Invested in Idaho Properties.

SAN FRANCISCO, Dec. 28.—The mineral output of Alaska this year will be about \$17,000,000, practically the same as last year. This is a slight increase over the output of 1901. The decline of the output of 1901, which continued until May of this year, and the shutting down of the big Mountain Copper company's output, did not open up until the latter part of the year, and the output of gold has been reduced more than half by strikes. In some cases mines have been shut down entirely, as it does not pay to work half of two-thirds of a force on low grade ore.

A short time ago the Cold Spring mine in Nevada county was bonded to an Eastern syndicate, which now proposes to begin development work immediately after the holidays. The property has been idle for over twenty years, but in the early days it yielded large returns. Experts declare that there are miles of rich gravel channels underlying the district, and only need the expenditure of a little capital to make them good paying properties.

The Telegraph quartz mine, nine miles from Donnellville, Nevada county, has five active shafts, and more than 100,000 tons of ore are soon to be shipped. The ore is very rich, much of it running over 1000 to the ton, and the amount is so large as to justify an extensive increase of the plant.

The Virginius Hill copper mines on the South Yuba River, recently transferred to a Philadelphia and San Francisco syndicate, consist of six locations 1.50 by 600 feet, with a surface area of 120 acres. The copper ore is said to be of the highest grade, and the rich ore of the Bull Hill mine in Sierra county. The vein is large, and if the ore continues as rich as in the past explored the body of copper will be the most important in the State. The mine has been opened on the vein and all have struck the richest grade of copper ore.

One of the richest gravel mines found in Sierra county is the Shoshone, near Sierra City. A 100-foot tunnel has been driven two shifts south, showing gravel which contains a large amount of coarse gold. The manager declares that the showing is the best he has known in thirty years' experience.

RIVER DEC. 27.—Ore has been found in the bottom of the Rich Shaft of the Tonopah Mining Company at a depth of 320 feet, the vein being large and well defined and the ore very rich.